

Amendments to the Specification

1. In the Specification at page 4, please amend the paragraph beginning at line 13 as follows:

According to the present invention, there is provided a gaseous product detecting device having at least one measuring cell, and comprising at least one filtering element for retaining particulate present in the air entering said measuring cell, and at least one detecting element housed inside said measuring cell; said device being characterized by comprising a movable wall of said measuring cell; said movable wall being movable in a fluidtight manner between a withdrawn position, in which said measuring cell has a maximum volume, and a forward position, in which said measuring cell has a minimum volume and said detecting element is prevented from being impressed by resting against a shutter surface of said measuring cell.

2. In the Specification at page 5, please amend the paragraph beginning at line 13 as follows:

FIG. 5 shows a longitudinal section of a fifth embodiment of the device according to the present invention; and

3. In the Specification at page 5, please amend the paragraph beginning at line 22 as follows:

Number 1 in FIG. 1 indicates as a whole a gaseous product detecting device. Device 1 comprises a cylindrical wall 2; a circular filtering element 3 closing cylindrical wall 2 and fixed to it by screws 4; a piston 5 housed partly inside cylindrical wall 2, at the opposite end to filtering element 3, and sliding axially in a fluidtight manner inside cylindrical wall 2; and a measuring cell 6 defined by an inner surface 2a of cylindrical wall 2, by a surface 3a of filtering element 3 facing piston 5, and by a surface 5a of piston 5 facing filtering element 3.

4. In the Specification at page 6, please amend the paragraph beginning at line 5 as follows:

Filtering element 3 comprises an annular support 7 fixed to cylindrical wall 2 by screws 4, and a known filter 8 (not described in detail) housed and fixed in known manner in the ~~centre~~ center of support 7.

5. In the Specification at page 6, please amend the paragraph beginning at line 9 as follows:

Piston 5 comprises a cylindrical head 9 housed inside cylindrical wall 2 and defining one wall of measuring cell 6; and a rod 10 which, depending on the position of piston 5, is either completely outside or partly inside cylindrical wall 2. Head 9 is fitted laterally with a cylindrical seal 11 contacting inner surface 2a to ensure a fluidtight slide of piston 5.

6. In the Specification at page 6, please amend the paragraph beginning at line 22 as follows:

Detecting device 1 also comprises a detecting element 13 housed inside measuring cell 6, close to filtering element 3. Detecting element 13 comprises a circular support 14 fixed in known manner to cylindrical wall 2; and known detector 15 (e.g. made of CR9, cellulose nitrate or polycarbonate) not described in detail, fixed to circular support 14 in a known manner, and facing piston 5. A peripheral portion of circular support 14 has a number of holes 16 (only four shown in FIG. 1) arranged in a circle and permitting passage of the air filtered by filter 8.

7. In the Specification at page 8, please amend the paragraph beginning line 19 as follows:

Piston 5 of detecting device 30 is moved from the withdrawn position to the forward position by pressing circular wall 33 of cup-shaped body 31, and is kept in the forward position by known retaining means shown schematically and indicated 35. Piston 5 is restored to the withdrawn position by simply pressing lightly on circular wall 33, so that, once retaining means 35 are released, piston 5 is pushed into the withdrawn position by spring 34.

8. In the Specification please amend the paragraph beginning at page 9, line 22 and continuing through page 10, line 8 as follows:

Detecting device 40 comprises a cup-shaped body 41, in turn comprising a cylindrical wall 42, and a circular wall 43 closing cylindrical wall 42. In circular wall 43 are formed a seat 44 for a filtering element 45 outside cylindrical wall 42, and a number of holes 16 allowing the air filtered by filtering element 45 to flow inside cylindrical wall 42. Device 40 also comprises a second cup-shaped body 47 which slides in a fluidtight manner inside first cup-shaped body 41, with its concavity facing outwards of cup-shaped body 41. Cup-shaped body 47 comprises a cylindrical wall 48; and a circular wall 49 closing cylindrical wall 48 and fitted with a detecting element 50 facing outwards of cylindrical wall 48. Circular wall 49 has a number of holes 51 allowing the filtered air to flow inside cylindrical wall 48.

9. In the Specification please amend the paragraph beginning at page 10, line 28, and continuing through page 11, line 7 as follows:

As will be clear from the foregoing description, detecting device 40 provides for eliminating the initial transient and tail effect drawbacks, by both measuring cells 59 and 60 being filled and emptied rapidly by the pumping effect produced by cup-shaped body 47 and piston 54,

respectively. Moreover, detecting device 40 provides for shielding detecting elements 50 and 56, by their resting on circular walls 43 and 49, respectively.

10. In the Specification please amend the paragraph at page 11, line 19 as follows:

As shown in FIG. 5, detecting device 70 comprises a piston 71, in turn comprising an outer portion 72, and an inner portion 73 which, according to a particular application of device 70, is free to move with respect to outer portion 72. Outer portion 72 comprises a tubular rod 74 defined by a hollow cylindrical wall 75 defining a cylindrical cavity 75a communicating with the outside through two circular openings 76 and 77 at respective ends of wall 75; and a head 78 comprising an annular wall 79, in the ~~centre~~ center of which is formed a dead circular cavity 80 facing detector 15 and having a central circular opening 76.

11. In the Specification please amend the paragraph beginning at page 14, line 1 as follows:

Clearly, changes may be made to the gaseous product detecting device according to the present invention without, however, departing from the scope of the accompanying ~~Claims~~ claims.